TOSHIBA

March 23, 2017 Memory Q & R Engineering Department Memory Division Storage & Electronic Devices Solutions Company TOSHIBA CORPORATION

Subject: Notification of Wire Material Change for 24nm Serial NAND with WSON Package

This is to notify the wire material of Serial NAND will be changed as follows.

1. AFFECTED PRODUCTS

24nm Serial NAND with WSON package

1Gbit	1.8V	TC58CYG0S3HRAIG
1Gbit	3.3V	TC58CVG0S3HRAIG
2Gbit	1.8V	TC58CYG1S3HRAIG
2Gbit	3.3V	TC58CVG1S3HRAIG
4Gbit	1.8V	TC58CYG2S0HRAIG
4Gbit	3.3V	TC58CVG2S0HRAIG

2. REASON FOR CHANGE

The existing gold (Au) wire will be changed to cupper (Cu) wire in order to improve production efficiency, the Cu wire has been used on our other products with verified quality and reliability.

3. IMPLEMENTATION DATE

From July 2017(delivery base) Customer evaluation samples are available upon request.

4. RELIABILITY TEST RESULTS

Samples passed the following reliability tests.

Test	Conditions	Pass/SS Judge
	30°C/70% RH/192h	60pcs/60pcs Pass
Adhesive Test	+ Reflow (260°C x 4 times)	
HAST	130° C /85% RH, 100h	100pcs/100pcs Pass
ТСТ	-65° C/1 50° C , 500cyc	100pcs/100pcs Pass

To:

5. IDENTIFICATION

	Wire material	ADDC	
Tray	Au Wire		
	(before change) BAH		
	Cu wire		
	(after change) BAJ		
Embossed taping	Au Wire		
	(before change)	BA <mark>O</mark>	
	Cu wire	BA <mark>1</mark>	
	(after change)		

The new products will be identified by a different additional code (ADDC) on barcode label affixed on an outer carton as shown below.

6. CUSTOMER ACKNOWLEDGEMENT OF RECEIPT

If customers have any questions on this change, please contact our sales representatives. No acknowledgement or response will be considered that this change has been accepted.

Sincerely,

Halalazama

Kazuo Hatakeyama Group Manager Memory Customer & Engineering Group Memory Q & R Engineering Department Storage & Electronic Devices Solutions Company TOSHIBA Corporation

No. 17MQ-G003-1 (E)